



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/967,065	09/28/2001	Abhay A. Dharmadhikari	884.492US1	4898
21186	7590	02/04/2005	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			LIN, WEN TAI	
			ART UNIT	PAPER NUMBER
			2154	

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/967,065	DHARMADHIKARI ET AL.	
	Examiner	Art Unit	
	Wen-Tai Lin	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-33 are presented for examination.
2. Claims 27 is objected to because the term "the selected network device" appears to lack antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 6-11, 23 and 28-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Saint-Hilaire et al. [U.S. PGPub 20020147832].
5. As to claim 1, Saint-Hilaire teaches the invention as claimed including: a method for selecting a network interface, the method comprising:

Art Unit: 2154

receiving a policy specifying user preferences [e.g., paragraphs 22 and 30; i.e., inherently there is one or more policies specifying the preferences];

selecting a network interface from a plurality of network interfaces by matching the user preferences to a network interface characteristic [Fig.2; paragraphs 30-31]; and

modifying a routing table entry associated with the selected network interface [paragraphs 5, 37 and 82; note that modifying/updating a relevant routing table to accommodate a selected network interface is an inherent operation of Saint-Hilaire's router].

6. As to claims 6-11, The method of claim 1, wherein receiving a policy includes receiving a policy specifying a network preference based on a cost of using a network communicably coupled to the network interface [paragraphs 30-31].

7. As to claims 23 and 28-33, since the features of these claims can also be found in claims 1 and 6-11, they are rejected for the same reasons set forth in the rejection of claims 1 and 6-11 above.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious

Art Unit: 2154

at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-5 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saint-Hilaire et al.(hereafter "Saint-Hilaire") [U.S. PGPub 20020147832], as applied to claims 1, 6-11, 23 and 28-33 above, further in view of Nakamura; et al.(hereafter "Nakamura;") [U.S. Pat. No. 6553031].

10. As to claims 2-5, Saint-Hilaire teaches that each network interface needs to be marked as passive or active [paragraph 31]. Saint-Hilaire does not specifically teach that the routing table entry includes a metric field and further wherein modifying the routing table entry includes modifying the metric field.

However, in the same field of endeavor, Nakamura; teaches a routing table having a plurality of entries each associated with an entry priority [Nakamura;: 15, Fig.5; 154, Fig.6; i.e., a metric field], which can be set to 1 (i.e., raising the priority) or set to 0 (i.e., lowering the priority) depending on a connection establishment flag so as to indicate that the associated low priority entries could be deleted (e.g., when no idle area exist for the table) [Abstract; col.7, lines 1-14].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Nakamura;'s metric field for controlling the next-hop address in Saint-Hilaire's routing table because Nakamura;'s method is an efficient way for marking Saint-Hilaire's plurality of network interfaces (each associated with a routing table's out port) as passive or active.

11. As to claims 24-27, since the features of these claims can also be found in claims 1-5 and 23, they are rejected for the same reasons set forth in the rejection of claims 1-5 and 23 above.

12. Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saint-Hilaire et al.(hereafter "Saint-Hilaire") [U.S. PGPub 20020147832], as applied to claims 1-11 and 23-33 above.

13. As to claims 12-14, Saint-Hilaire teaches using policies to effect information processing (which naturally includes how the active interfaces are chosen along the routing path can be imposed, required, or suggested by the application sending the information, wherein the application is a software-based configuration program [paragraphs 22-23]. Thus, although Saint-Hilaire does not specifically teach how the policy is received, it is obvious that an application (along with path-forming policies) may be originated from a user interface, a configuration file or an environment variable, because Saint-Hilaire's order of preferences is adapted to the network environment.

14. As to claims 15-22, Saint-Hilaire teaches substantially the same invention as described in claims 1-14 above. Saint-Hilaire is silent about using: (1) a user interface for specifying user preferences; (2) a policy manager for performing the selection of

Art Unit: 2154

appropriate network interfaces; and (3) a link monitor for monitoring the status of network interface.

However, since Saint-Hilaire teaches that selection of active interfaces is based on an order of preference [paragraph 30], it is obvious that such preference could be directly acquired from a user interface. Further, there must be some means (or calling it a policy manager) in Saint-Hilaire's system to perform the selection based on the expressed preferences; and there must be some means for monitoring the availability of a network interface because Saint-Hilaire's system's need to decide whether the interface is active or passive.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Doviak; et al. [U.S. Pat. No. 6198920];

Xu et al. [U.S. PGPub 20030026211];

Saint-Hilaire et al. [U.S. PGPub 20020142774];

Nishi [U.S. PGPub 20010027484];

Jurkevich; et al. [U.S. Pat. No. 5282207]; and

La et al. [U.S. Pat. No. 6654359].

16. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 days from the mail date of this letter. Failure to respond within the period

Art Unit: 2154

for response will result in ABANDONMENT of the application (see 35 U.S.C. 133, M.P.E.P. 710.02, 710.02(b)).

Conclusion

Examiner note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the contest of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)872-9306 for official communications; and

(571)273-3969 for status inquires draft communication.

Art Unit: 2154

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

February 3, 2005

Wen-Tai Lin
2/3/05